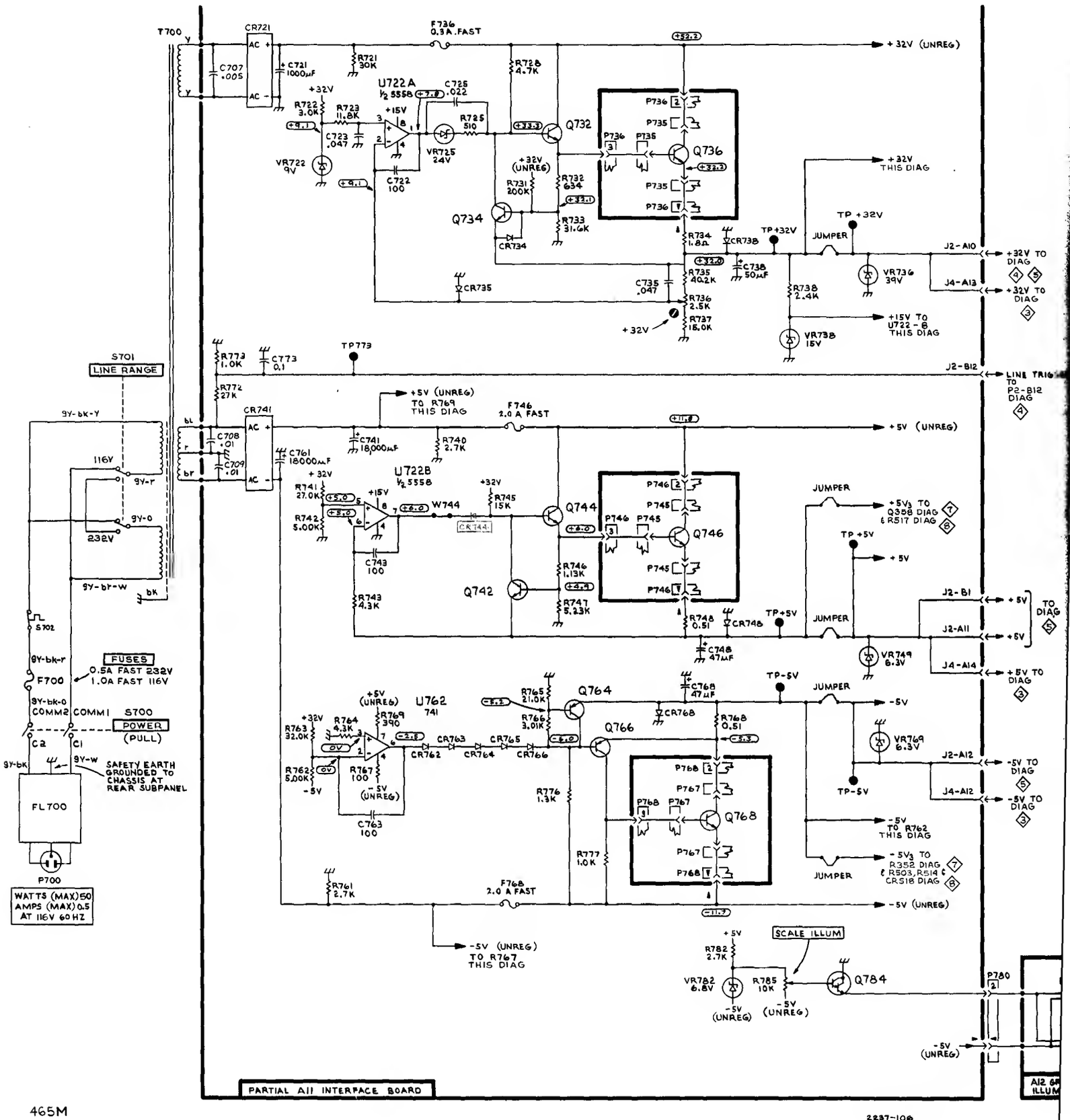
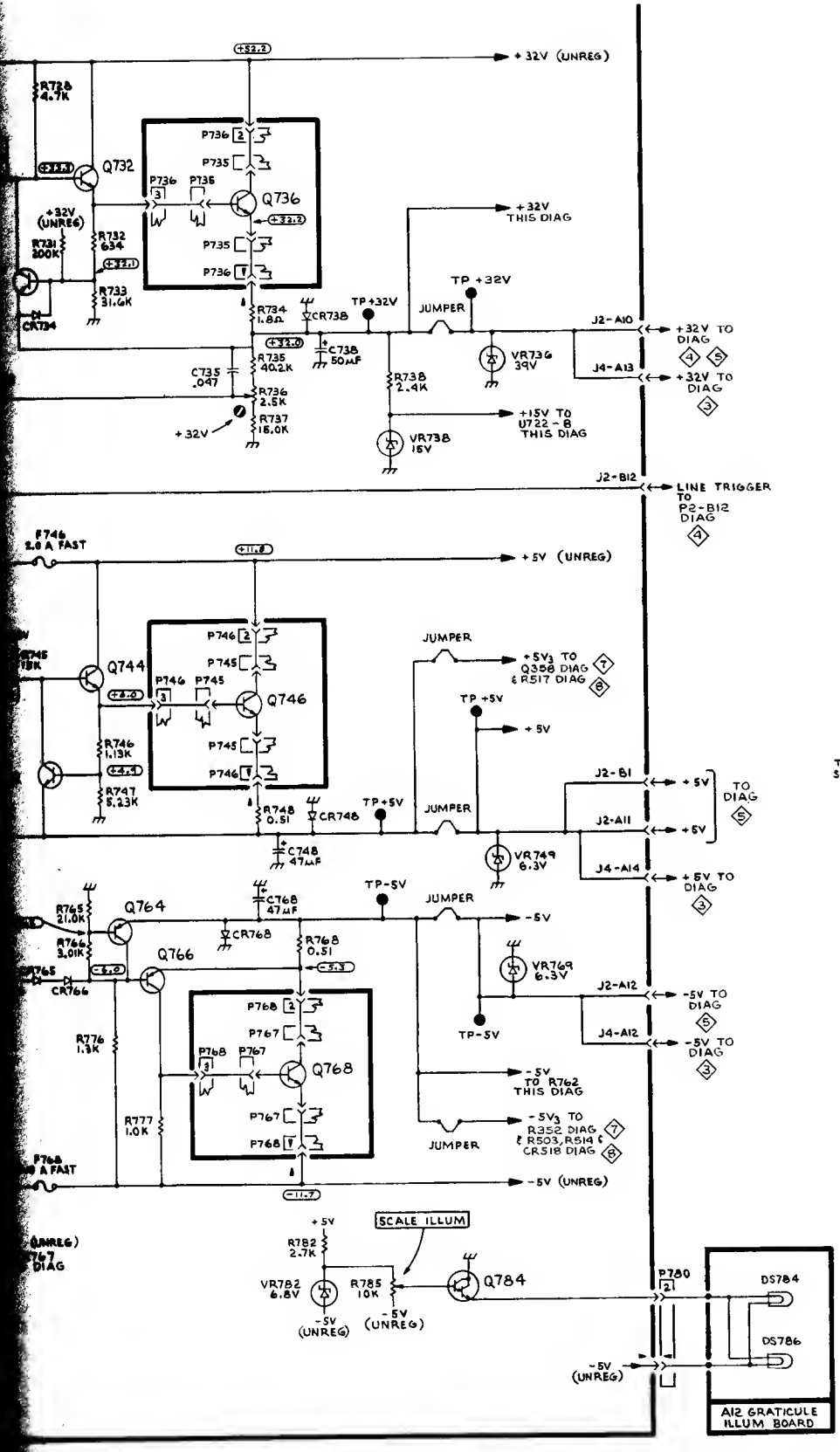
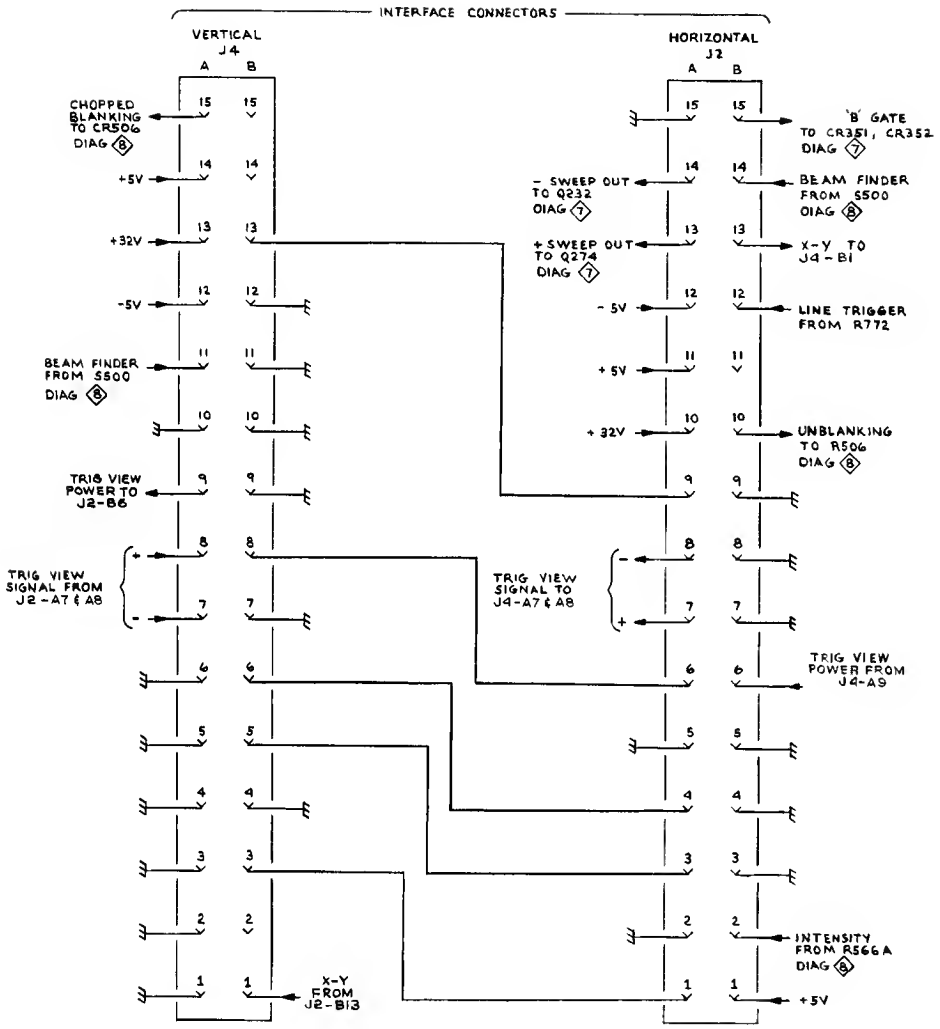


2237-106
REV B FEB 1981

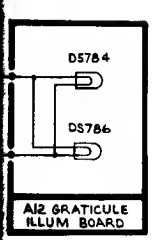


2237-106
REV B FEB 1981

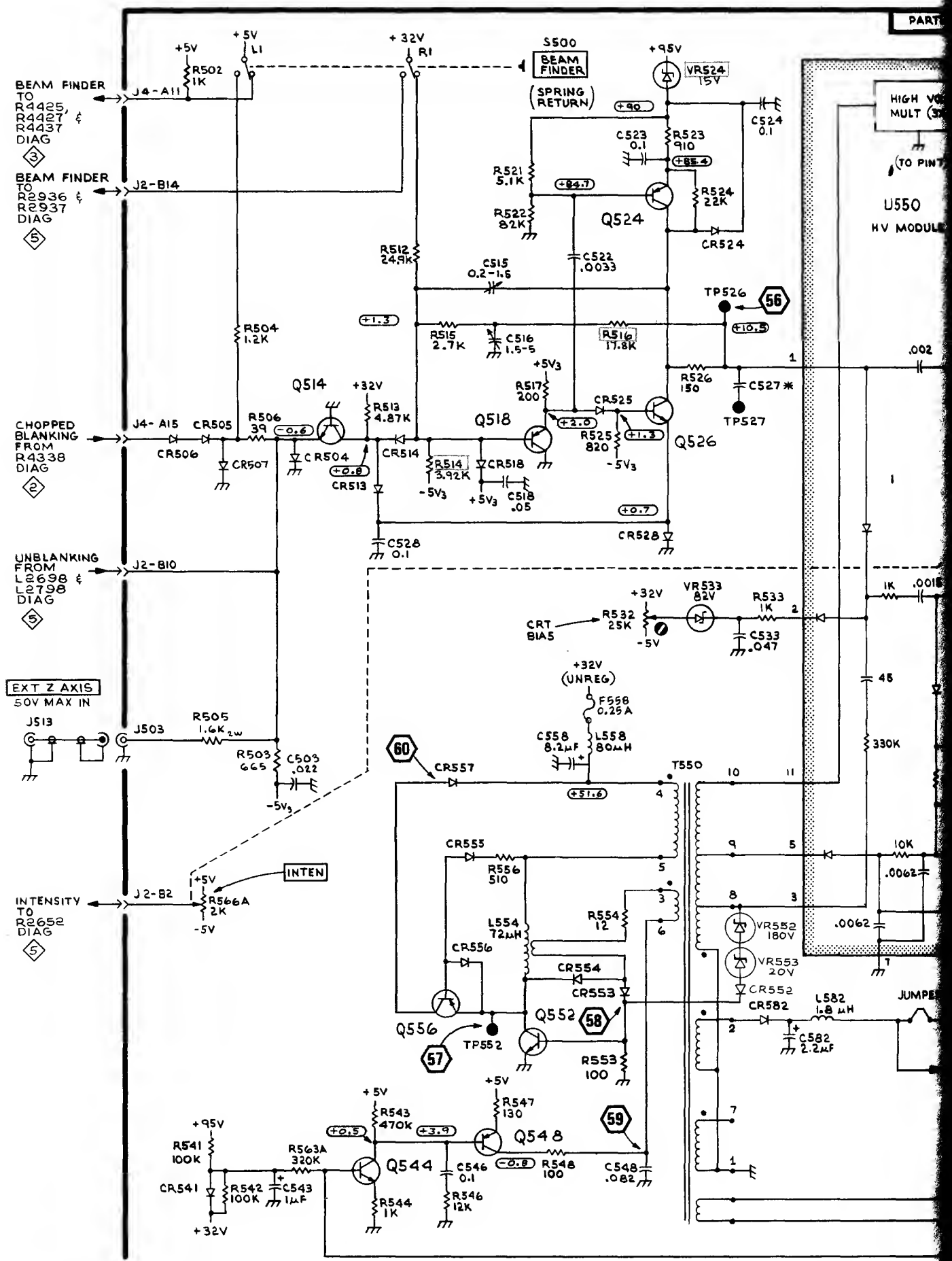
POWER SUPPLY & INTERFACE



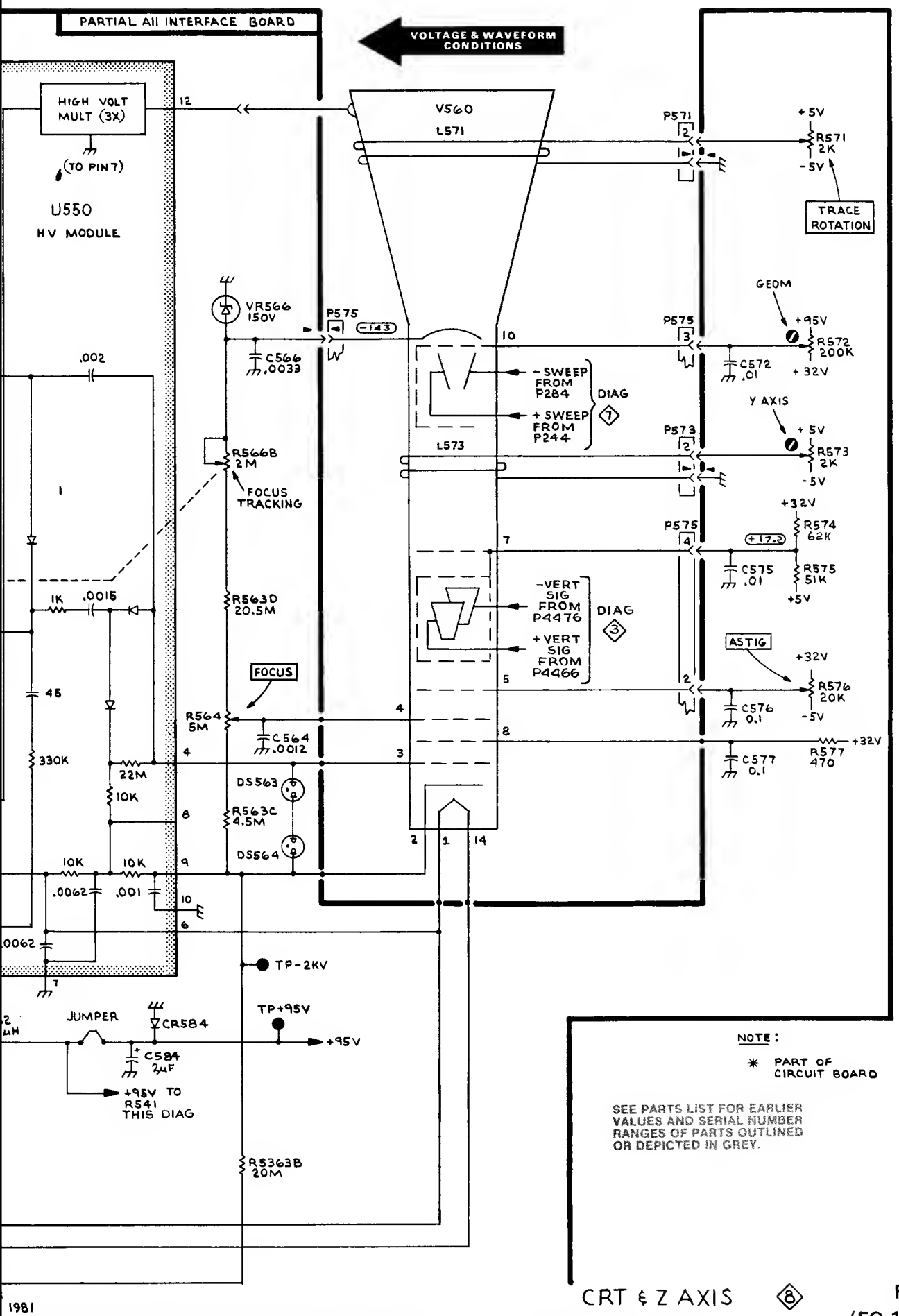
SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES OF PARTS OUTLINED OR DEPICTED IN GREY.

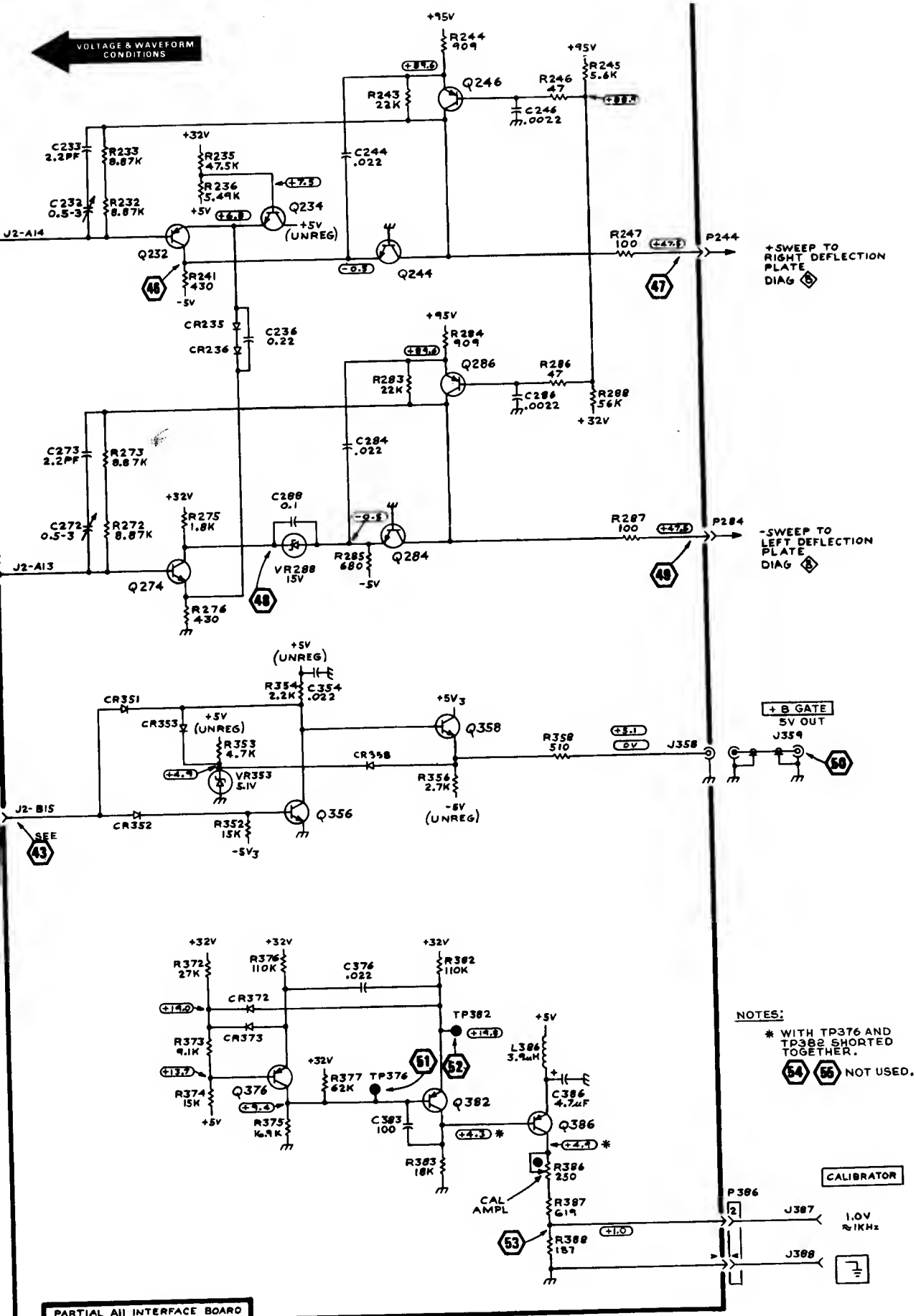


POWER SUPPLY & INTERFACE CONNECTORS ◇9



2237-105
REV B FEB 1981

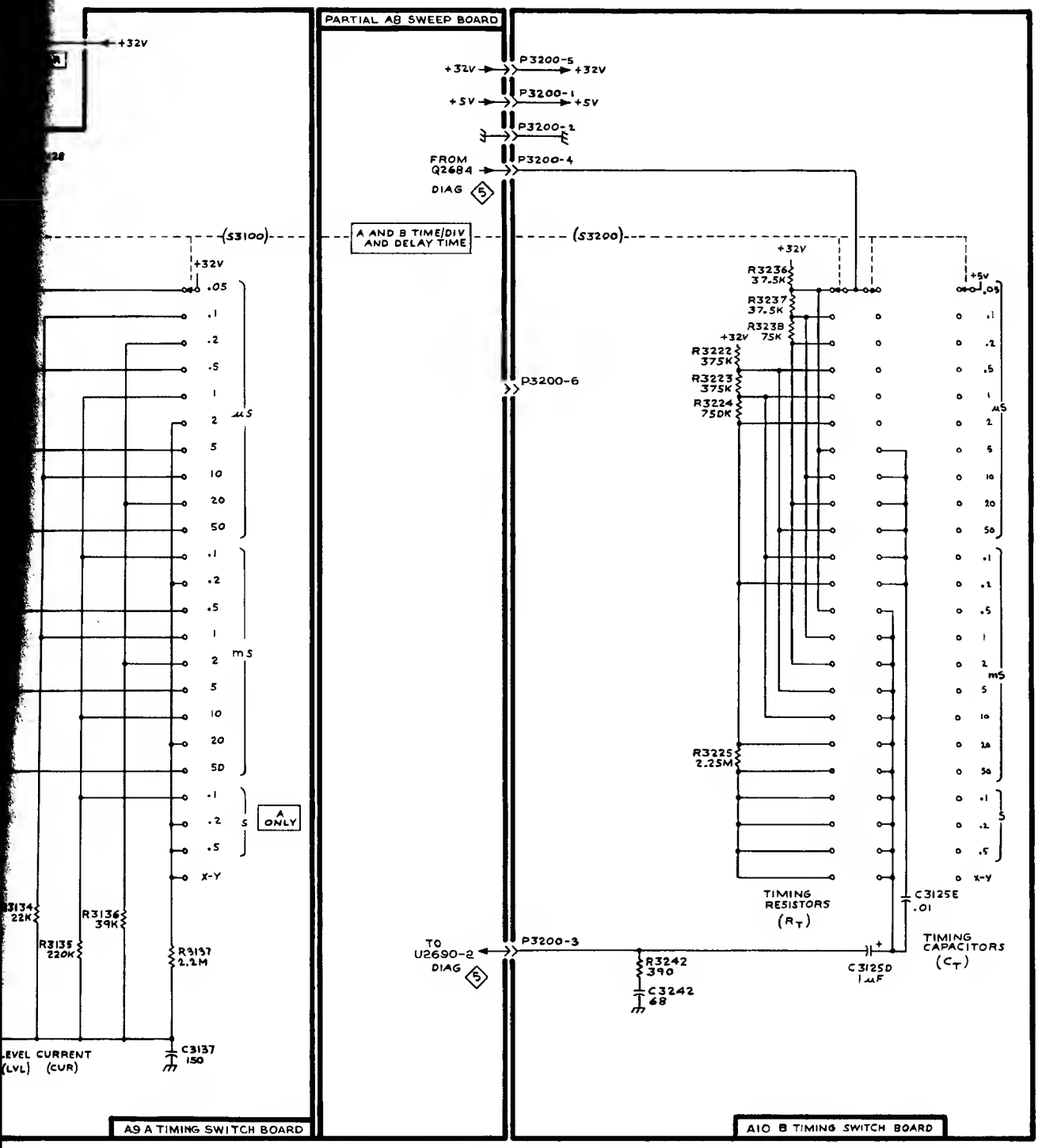

PARTIAL AII INTERFACE BOARD
VOLTAGE & WAVEFORM CONDITIONS
HIGH VOLT MULT (3X)
(TO PIN 7)
U550
HV MODULE
V560
L571
L573
P571
P573
P575
+5V
R571 2K
-5V
TRACE ROTATION
GEOM
+95V
R572 200K
+32V
C572 .01
Y AXIS
+5V
R573 2K
-5V
+32V
R574 62K
+17.2
C575 .01
R575 51K
+5V
ASTIG
+32V
R576 20K
-5V
C576 0.1
+32V
R577 470
C577 0.1
VR566 150V
C566 .0033
.002
R566B 2M
FOCUS TRACKING
R563D 20.5M
FOCUS
R564 5M
C564 .0012
DS563
R563C 4.5M
DS564
-SWEEP FROM P284
+SWEEP FROM P244
DIAG
-VERT SIG FROM P4476
+VERT SIG FROM P4466
DIAG
1K
.0015
45
330K
22M
10K
10K
10K
.0062
.001
.0062
TP-2KV
JUMPER
CR584
TP+95V
+95V
C584 2μF
+95V TO R541 THIS DIAG
R5363B 20M
NOTE:
* PART OF CIRCUIT BOARD
SEE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES OF PARTS OUTLINED OR DEPICTED IN GREY.



2257-104
REV B FEB 1981

HORIZONTAL AMPLIFIER, +B GATE & CALIBRATOR ⟨7⟩

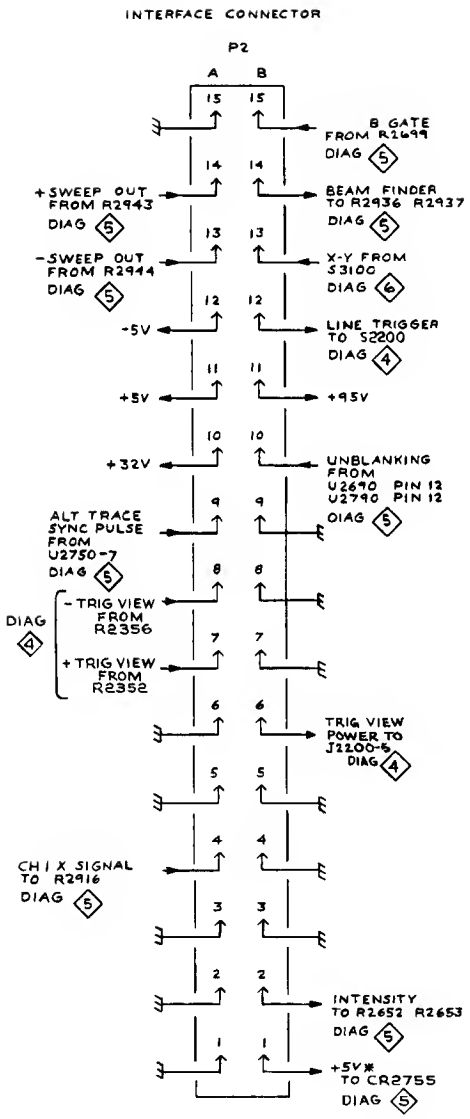
FO-9 (Front)
(FO-9 Rear Blank)

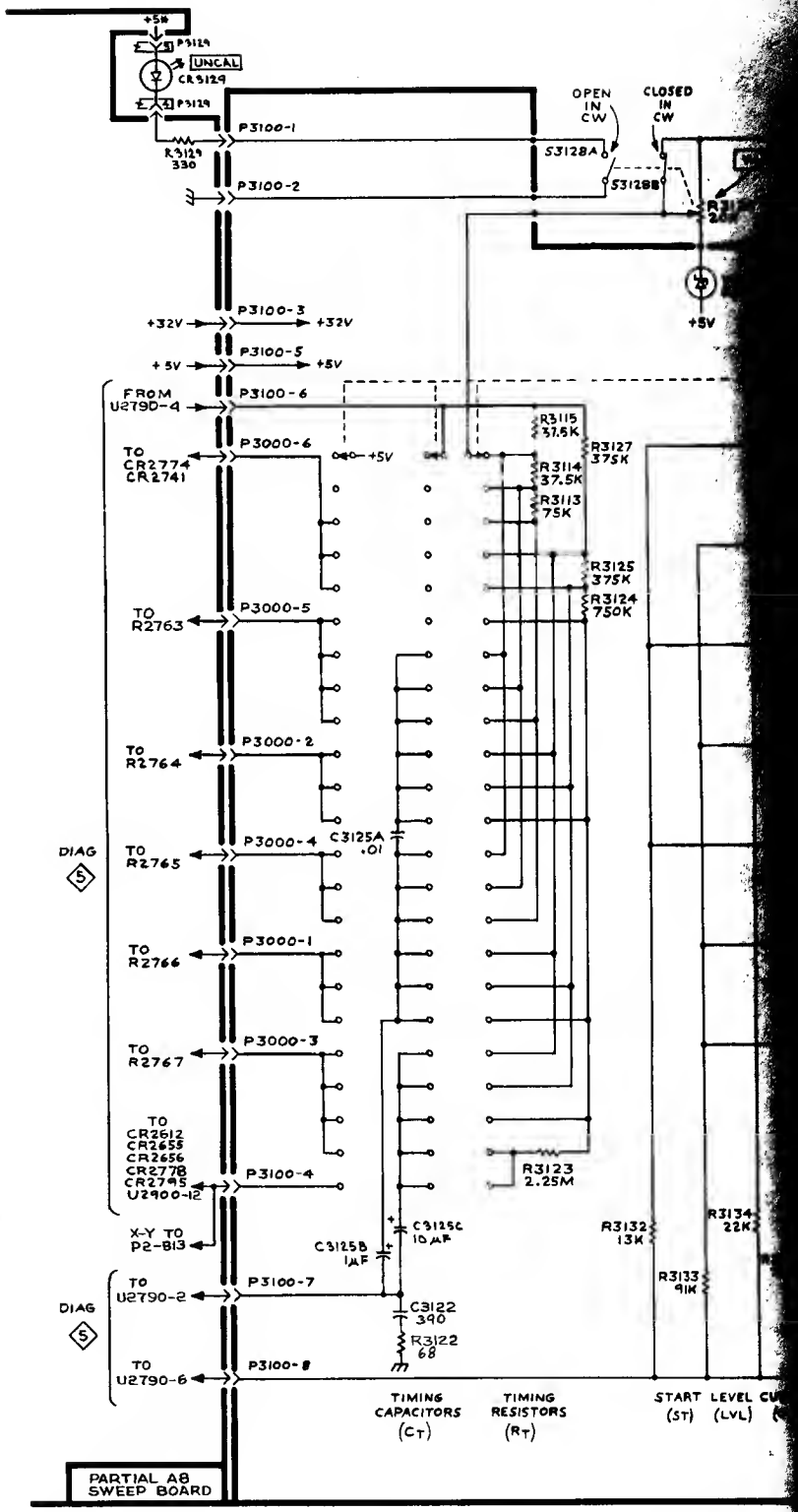


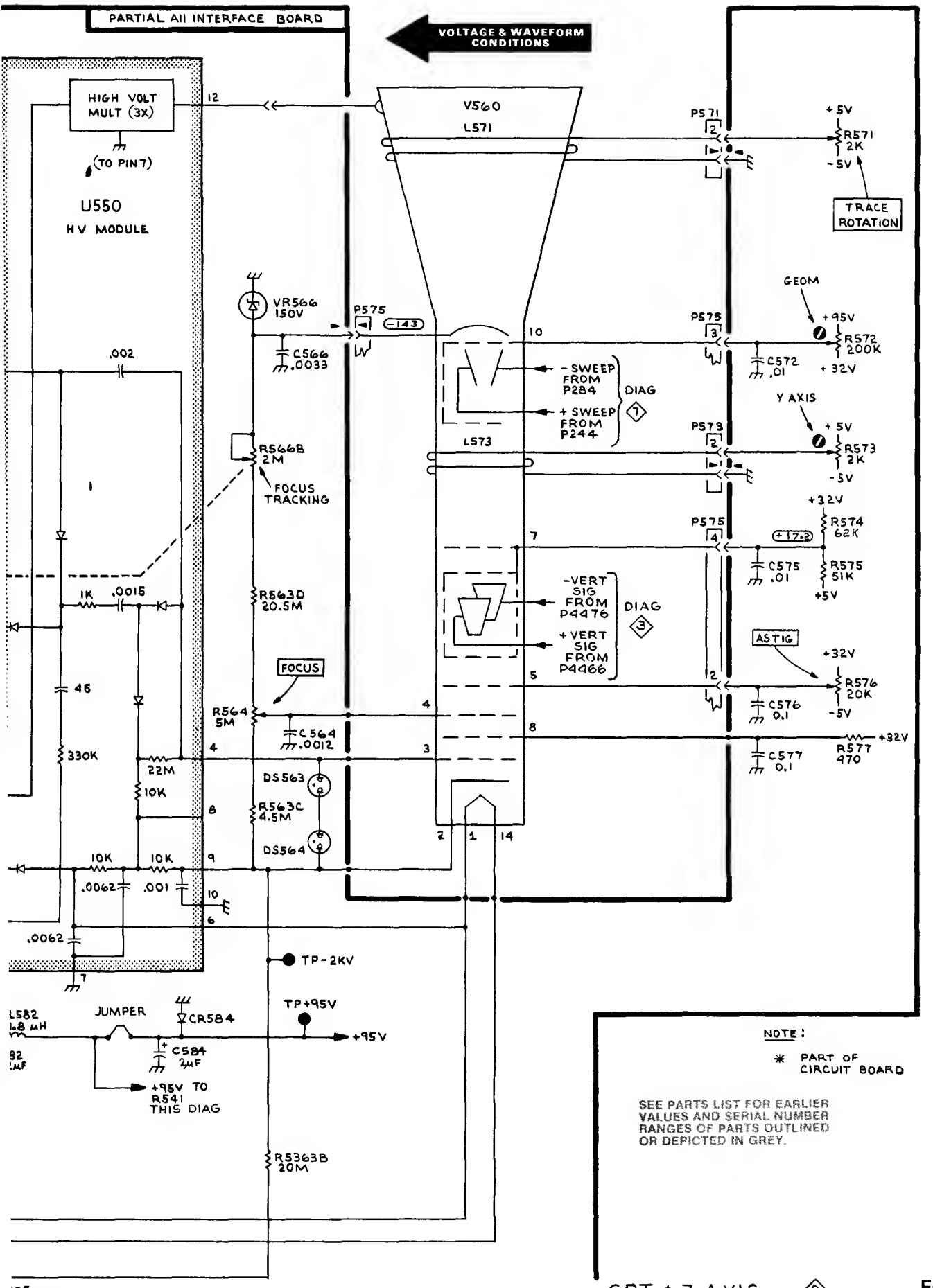
A & B TIMING SWITCH & INTERFACE CONNECTOR 6

03
EB 1981

FO-8 (Front)
(FO-8 Rear Blank)


INTERFACE CONNECTOR
P2
A
B
B GATE FROM R2499 DIAG 5
+SWEEP OUT FROM R2943 DIAG 5
BEAM FINDER TO R2936 R2937 DIAG 5
-SWEEP OUT FROM R2944 DIAG 5
X-Y FROM S3100 DIAG 6
-5V
LINE TRIGGER TO S2200 DIAG 4
+5V
+95V
+32V
UNBLANKING FROM U2690 PIN 12 U2790 PIN 12 DIAG 5
ALT TRACE SYNC PULSE FROM U2750-7 DIAG 5
DIAG 4
-TRIG VIEW FROM R2356
+TRIG VIEW FROM R2352
TRIG VIEW POWER TO J2200-5 DIAG 4
CH 1 X SIGNAL TO R2916 DIAG 5
INTENSITY TO R2652 R2653 DIAG 5
+5V* TO CR2755 DIAG 5

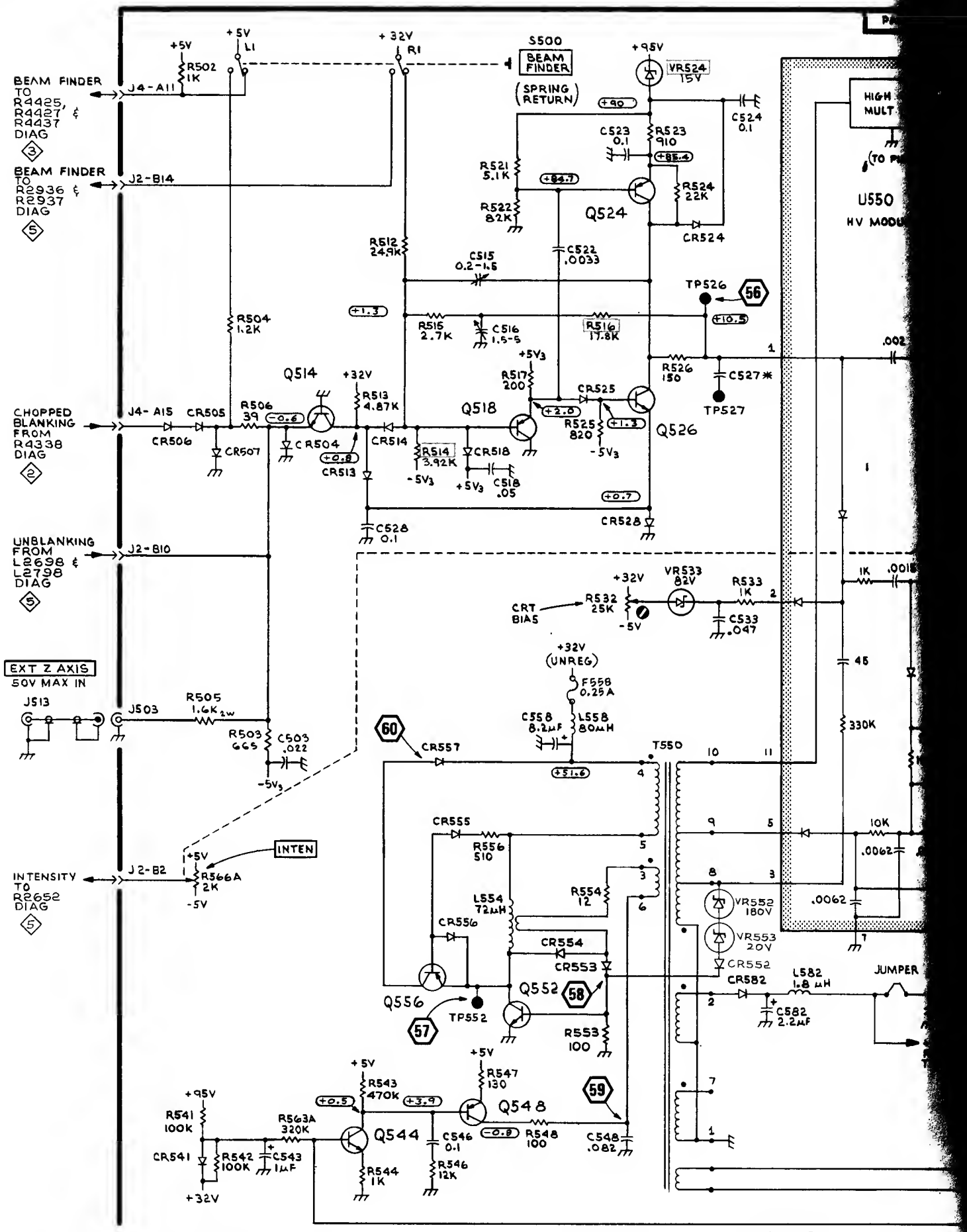

+5*
P3129
UNCAL
CR3129
OPEN IN CW
CLOSED IN CW
P3100-1
R3129 330
S3128A
S3128B
P3100-2
P3100-3
+32V
P3100-5
+5V
FROM U2790-4
P3100-6
R3115 37.5K
R3127 375K
R3114 37.5K
R3113 75K
TO CR2774 CR2741
P3000-6
R3125 375K
R3124 750K
TO R2763
P3000-5
TO R2764
P3000-2
C3125A .01
TO R2765
P3000-4
DIAG 5
TO R2766
P3000-1
TO R2767
P3000-3
R3123 2.25M
TO CR2612 CR2655 CR2656 CR2778 CR2795 U2900-12
P3100-4
X-Y TO P2-B13
C3125C 10 µF
C3125B 1µF
R3132 13K
R3134 22K
R3133 91K
TO U2790-2
P3100-7
C3122 390
R3122 68
TO U2790-6
P3100-8
TIMING CAPACITORS (CT)
TIMING RESISTORS (RT)
START (ST)
LEVEL (LVL)
PARTIAL A8 SWEEP BOARD

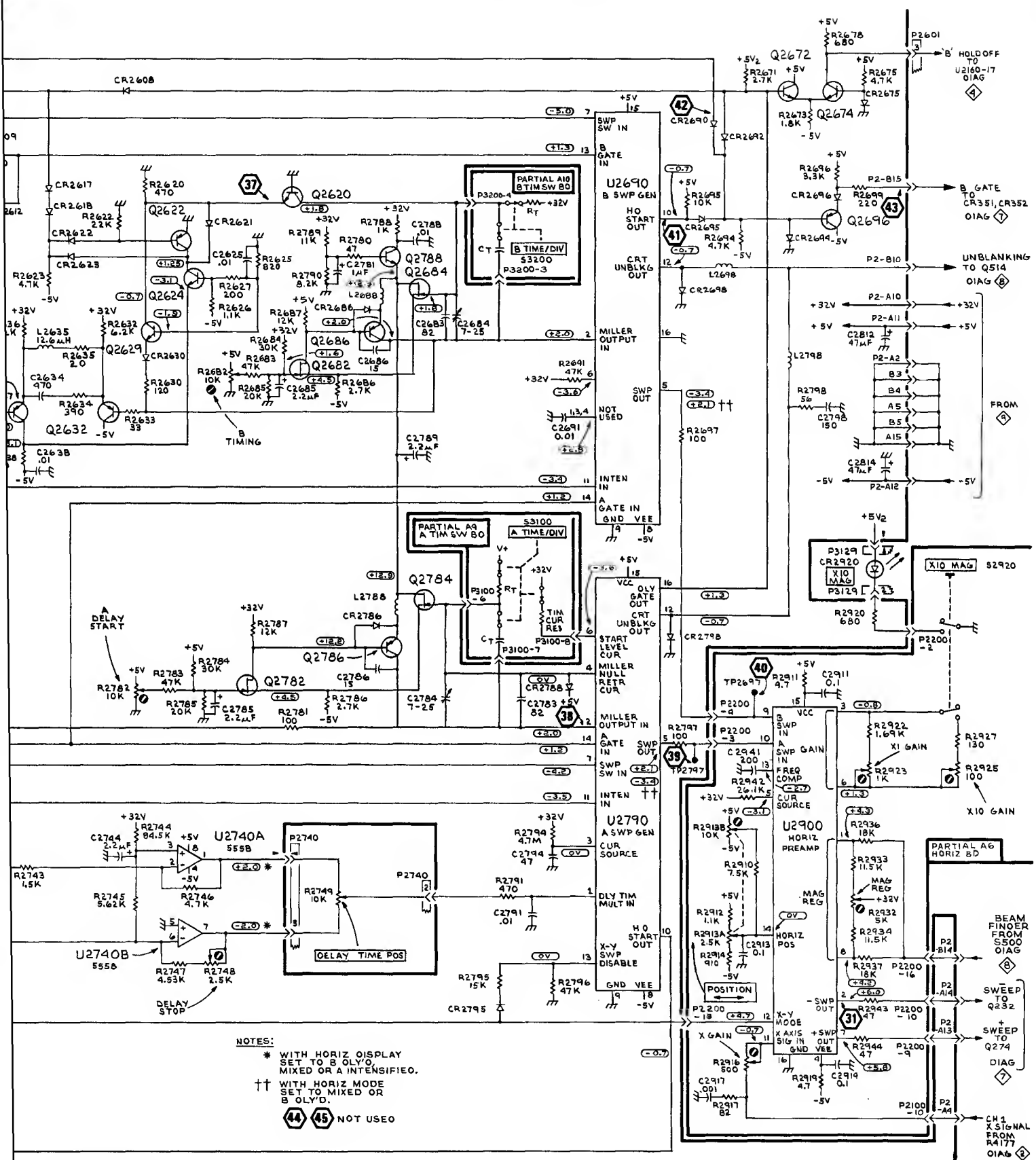


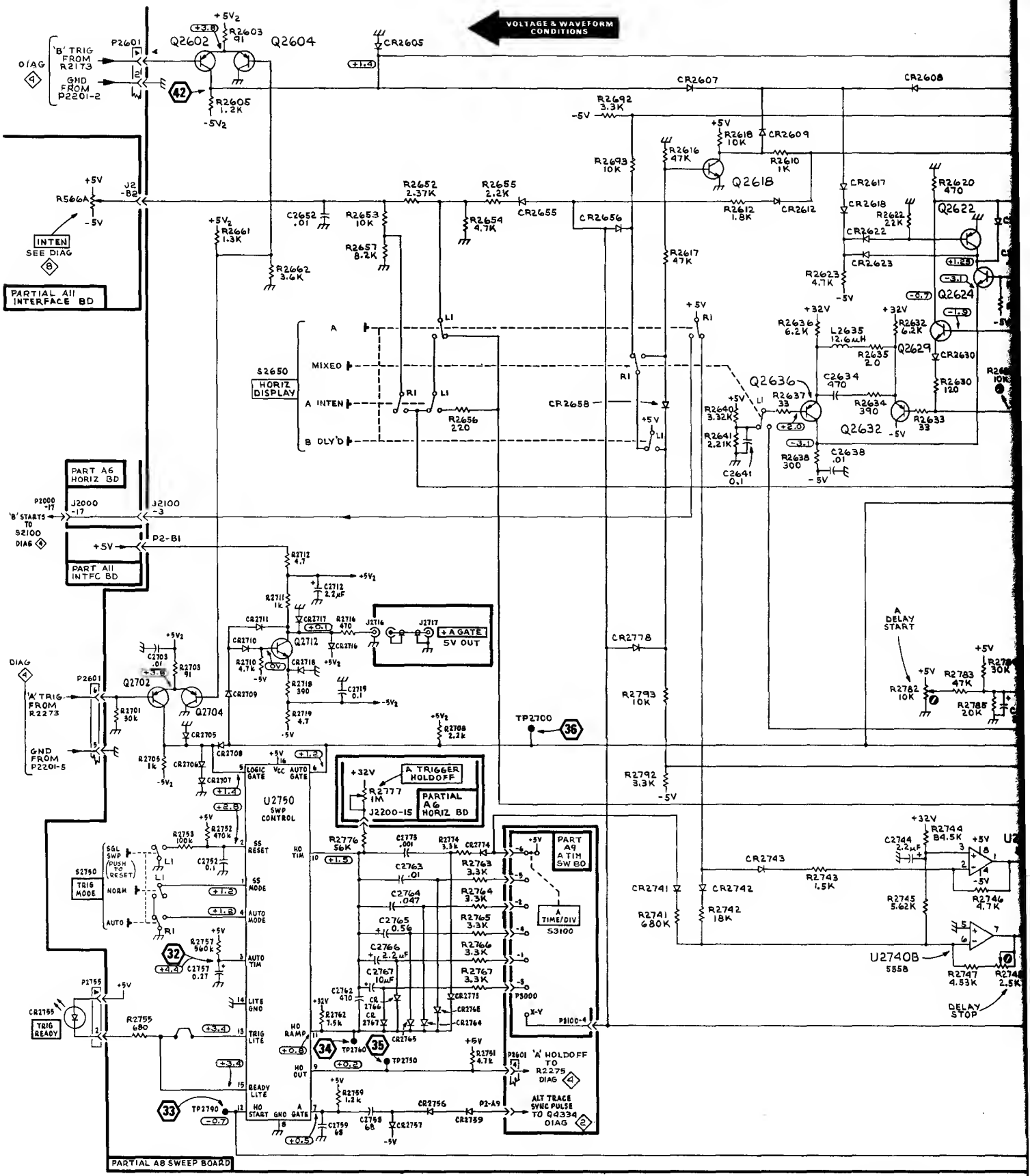
105
EB 1981

CRT & Z AXIS ⑧

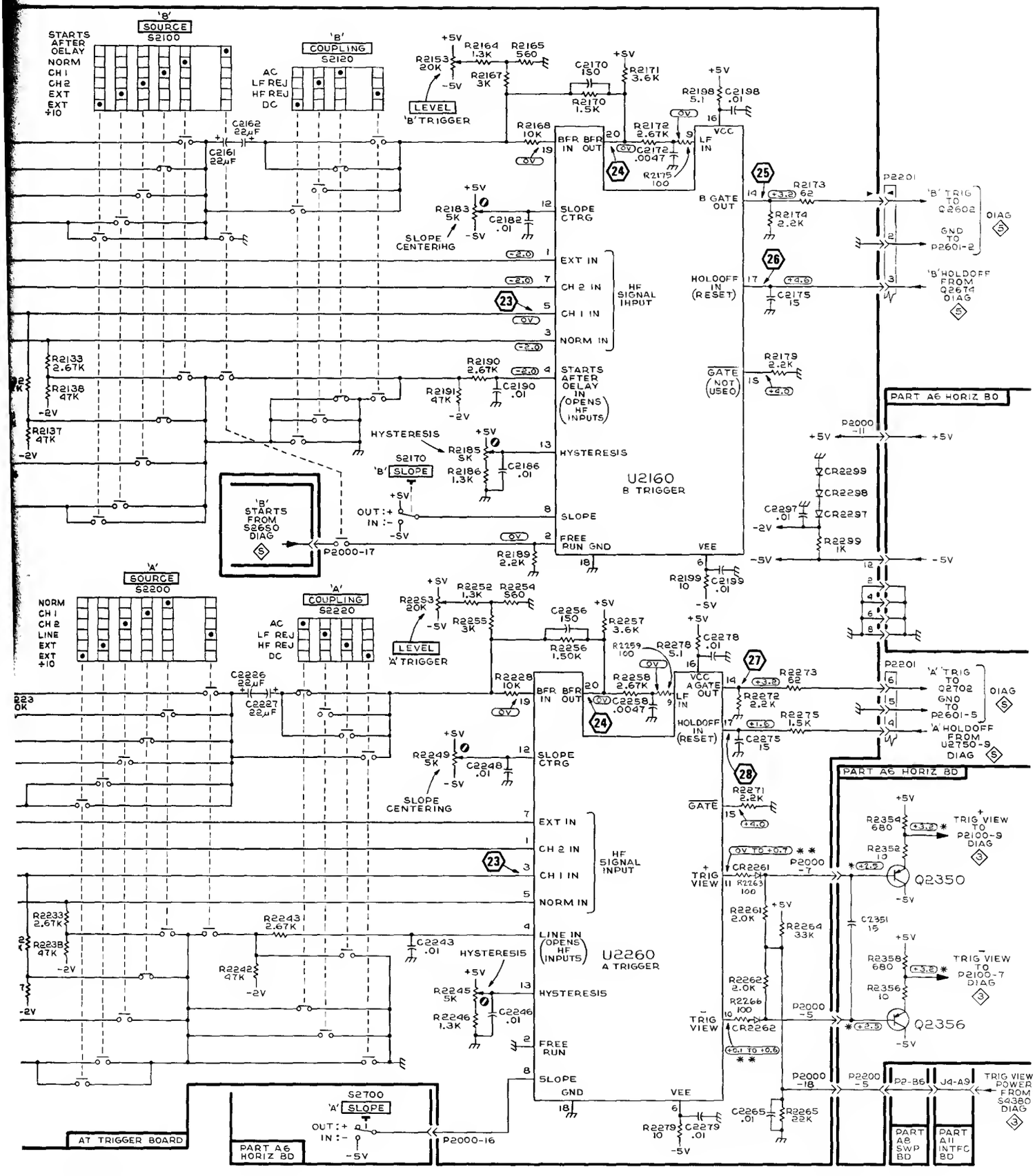
FO-10 (Front)
(FO-10 Rear Blank)

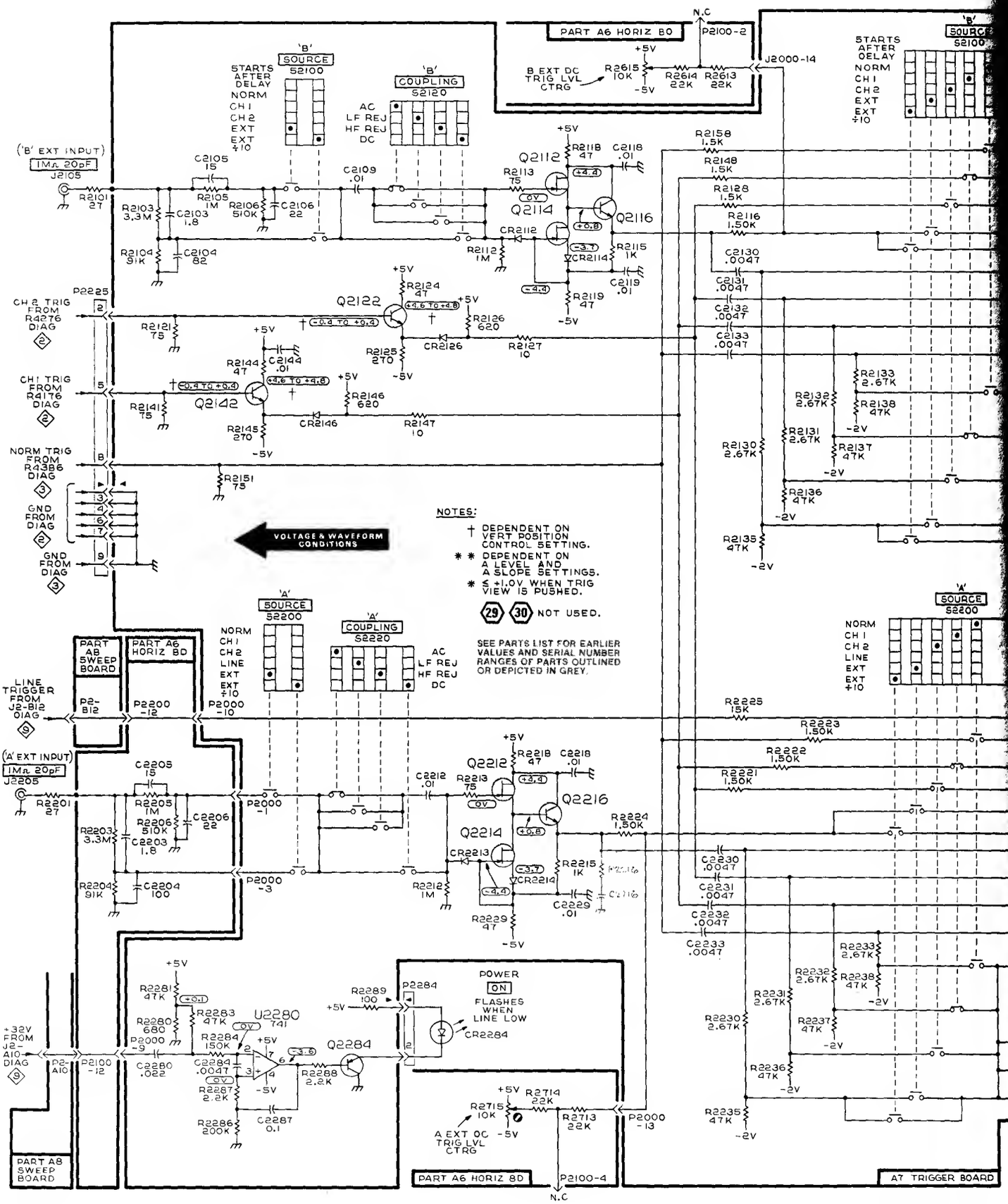

BEAM FINDER TO R4425, R4427 & R4437 DIAG 3
BEAM FINDER TO R2936 & R2937 DIAG 5
CHOPPED BLANKING FROM R4338 DIAG 2
UNBLANKING FROM L2698 & L2798 DIAG 5
EXT Z AXIS 50V MAX IN
INTENSITY TO R2652 DIAG 5
J4-A11
J2-B14
J4-A15
J2-B10
J513
J503
J2-B2
+5V
+32V
+95V
-5V
-5V3
+5V3
L1
R1
S500
BEAM FINDER
(SPRING RETURN)
INTEN
R502 1K
R504 1.2K
R505 1.6K 2W
R503 665
C503 .022
R506 39
CR505
CR506
CR507
CR504
CR513
CR514
Q514
R513 4.87K
R514 3.92K
CR518
C518 .05
Q518
R512 24.9K
C515 0.2-1.5
C516 1.5-5
R515 2.7K
R516 17.8K
R517 200
CR525
R525 820
Q526
R526 150
C527*
TP527
TP526
56
R521 5.1K
R522 82K
Q524
R523 910
R524 22K
CR524
C522 .0033
C523 0.1
C524 0.1
VR524 15V
C528 0.1
CR528
R532 25K
CRT BIAS
VR533 82V
R533 1K
C533 .047
F558 0.25A
C558 8.2µF
L558 80mH
T550
CR557
60
CR555
R556 510
CR556
L554 72µH
R554 12
CR554
CR553
Q556
TP552
57
Q552
58
R553 100
VR552 180V
VR553 20V
CR552
CR582
L582 1.8 µH
C582 2.2µF
JUMPER
R541 100K
R563A 320K
CR541
R542 100K
C543 1µF
Q544
R544 1K
C546 0.1
R546 12K
R543 470K
R547 130
Q548
59
R548 100
C548 .082
+1.3
+10.5
+2.0
+1.3
+0.6
+0.8
+0.7
+51.6
+90
+85.4
+84.7
+0.5
+3.9
-0.8
U550
HV MODU
HIGH MULT
(TO P
1K
.001
45
330K
10K
.0062
.002
465M
2237-105
REV B FEB 1981


U2690
B SWP GEN
U2790
A SWP GEN
U2900
HORIZ PREAMP
U2740A
U2740B
Q2620
Q2622
Q2624
Q2629
Q2632
Q2634
Q2635
Q2636
Q2638
Q2672
Q2674
Q2676
Q2678
Q2680
Q2682
Q2684
Q2686
Q2688
Q2690
Q2692
Q2694
Q2696
Q2698
Q2700
Q2702
Q2704
Q2706
Q2708
Q2710
Q2712
Q2714
Q2716
Q2718
Q2720
Q2722
Q2724
Q2726
Q2728
Q2730
Q2732
Q2734
Q2736
Q2738
Q2740
Q2742
Q2744
Q2746
Q2748
Q2750

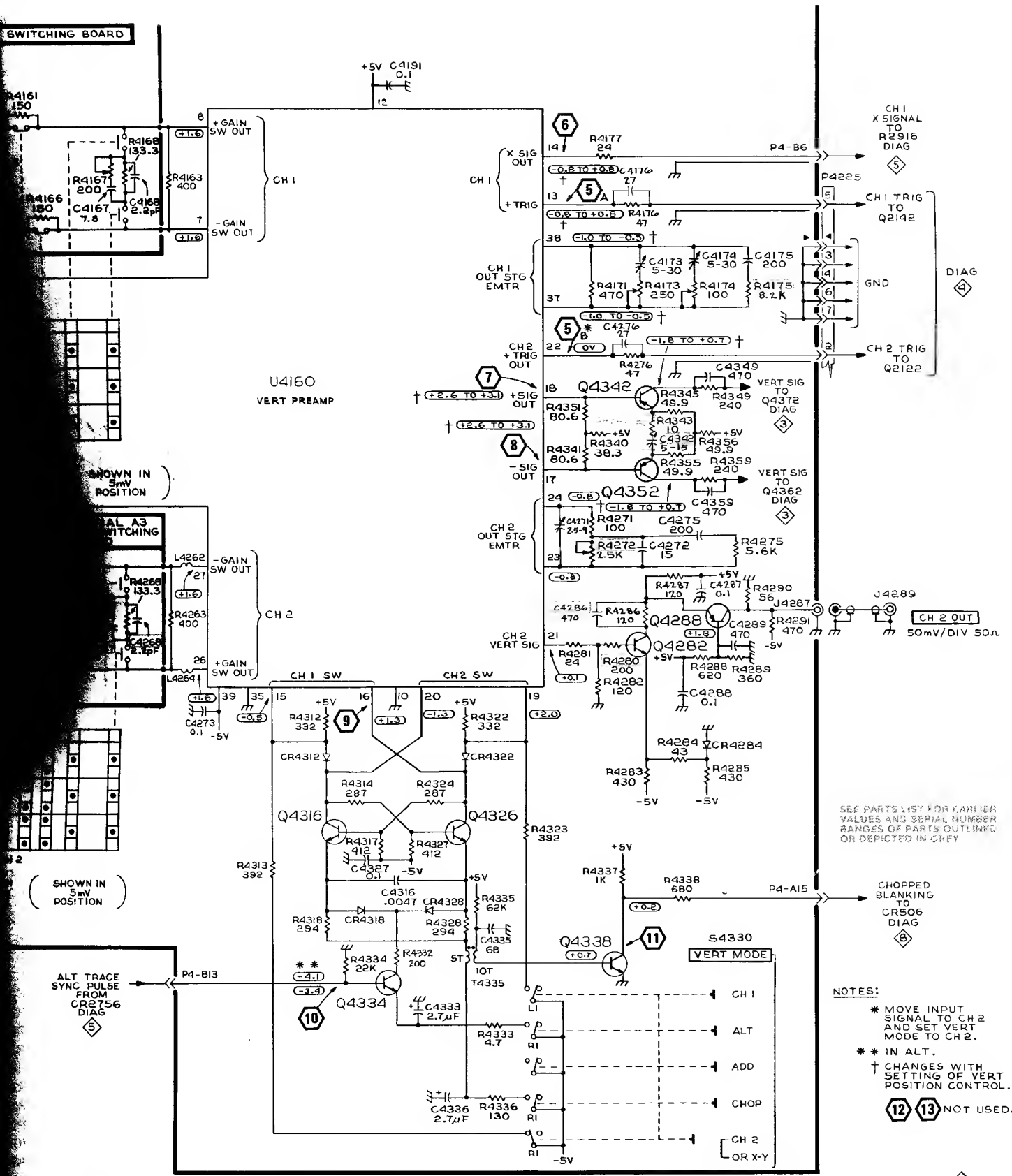


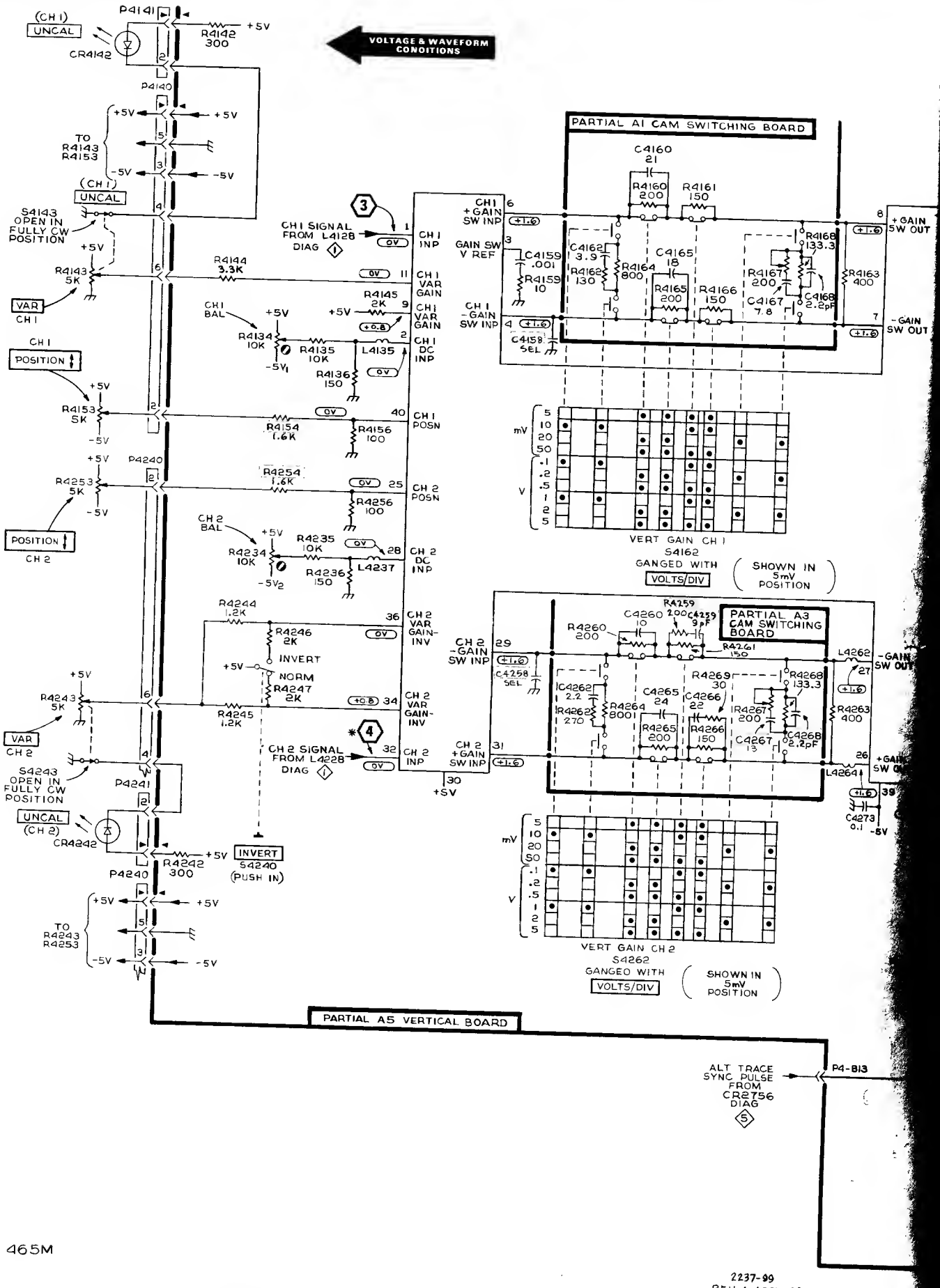
2237-102
REV B FEB 1981


'B' SOURCE S2100
STARTS AFTER DELAY
NORM
CH 1
CH 2
EXT
EXT ÷10
'B' COUPLING S2120
AC
LF REJ
HF REJ
DC
LEVEL
'B' TRIGGER
R2153 20K
R2164 1.3K
R2165 560
R2167 3K
R2170 1.5K
C2170 150
R2171 3.6K
R2198 5.1
C2198 .01
C2162 22µF
C2161 22µF
R2168 10K
R2172 2.67K
C2172 .0047
R2175 100
R2183 5K
C2182 .01
SLOPE CENTERING
R2133 2.67K
R2136 47K
R2137 47K
R2190 2.67K
C2190 .01
R2191 47K
HYSTERESIS
R2185 5K
R2186 1.3K
C2186 .01
S2170 'B' SLOPE
OUT :+
IN :-
'B' STARTS FROM S2650 DIAG 5
P2000-17
R2189 2.2K
R2199 10
C2199 .01
U2160
B TRIGGER
BFR IN
BFR OUT
SLOPE CTRG
EXT IN
CH 2 IN
CH 1 IN
NORM IN
HF SIGNAL INPUT
STARTS AFTER DELAY IN (OPENS HF INPUTS)
HYSTERESIS
SLOPE
FREE RUN GND
VCC
LF IN
B GATE OUT
HOLDOFF IN (RESET)
GATE (NOT USED)
VEE
R2173 62
R2174 2.2K
C2175 15
R2179 2.2K
P2201
'B' TRIG TO Q2602
GND TO P2601-2
'B' HOLDOFF FROM Q2674 DIAG 5
DIAG 5
PART A6 HORIZ BD
P2000 -11
CR2299
CR2298
CR2297
C2297 .01
R2299 1K
'A' SOURCE S2200
NORM
CH 1
CH 2
LINE
EXT
EXT ÷10
'A' COUPLING S2220
AC
LF REJ
HF REJ
DC
LEVEL
'A' TRIGGER
R2253 20K
R2252 1.3K
R2254 560
R2255 3K
C2256 150
R2256 1.50K
R2257 3.6K
R2259 100
R2278 5.1
C2278 .01
C2226 22µF
C2227 22µF
R2228 10K
R2258 2.67K
C2258 .0047
R2249 5K
C2248 .01
SLOPE CENTERING
R2233 2.67K
R2238 47K
R2243 2.67K
R2242 47K
C2243 .01
HYSTERESIS
R2245 5K
R2246 1.3K
C2246 .01
U2260
A TRIGGER
EXT IN
CH 2 IN
CH 1 IN
NORM IN
HF SIGNAL INPUT
LINE IN (OPENS HF INPUTS)
HYSTERESIS
FREE RUN
SLOPE
GND
VEE
VCC
A GATE OUT
HOLDOFF IN (RESET)
GATE
R2273 62
R2272 2.2K
R2275 1.5K
C2275 15
R2271 2.2K
P2201
'A' TRIG TO Q2702
GND TO P2601-5
'A' HOLDOFF FROM U2750-9 DIAG 5
DIAG 5
PART A6 HORIZ BD
R2354 680
R2352 10
Q2350
TRIG VIEW TO P2100-9 DIAG 3
CR2261
R2263 100
R2261 2.0K
R2264 33K
C2351 15
R2358 680
R2356 10
Q2356
TRIG VIEW TO P2100-7 DIAG 3
R2262 2.0K
R2266 100
CR2262
P2000 -7
P2000 -5
P2000 -18
P2200 -5
P2-B6
J4-A9
TRIG VIEW POWER FROM S4380 DIAG 3
C2265 .01
R2265 22K
R2279 10
C2279 .01
S2700 'A' SLOPE
OUT :+
IN :-
P2000-16
AT TRIGGER BOARD
PART A6 HORIZ BD
PART A8 SWP BD
PART A11 INTFC BD
2237-101
REV A SEPT 1980
TRIGGER AMPLIFIER 4

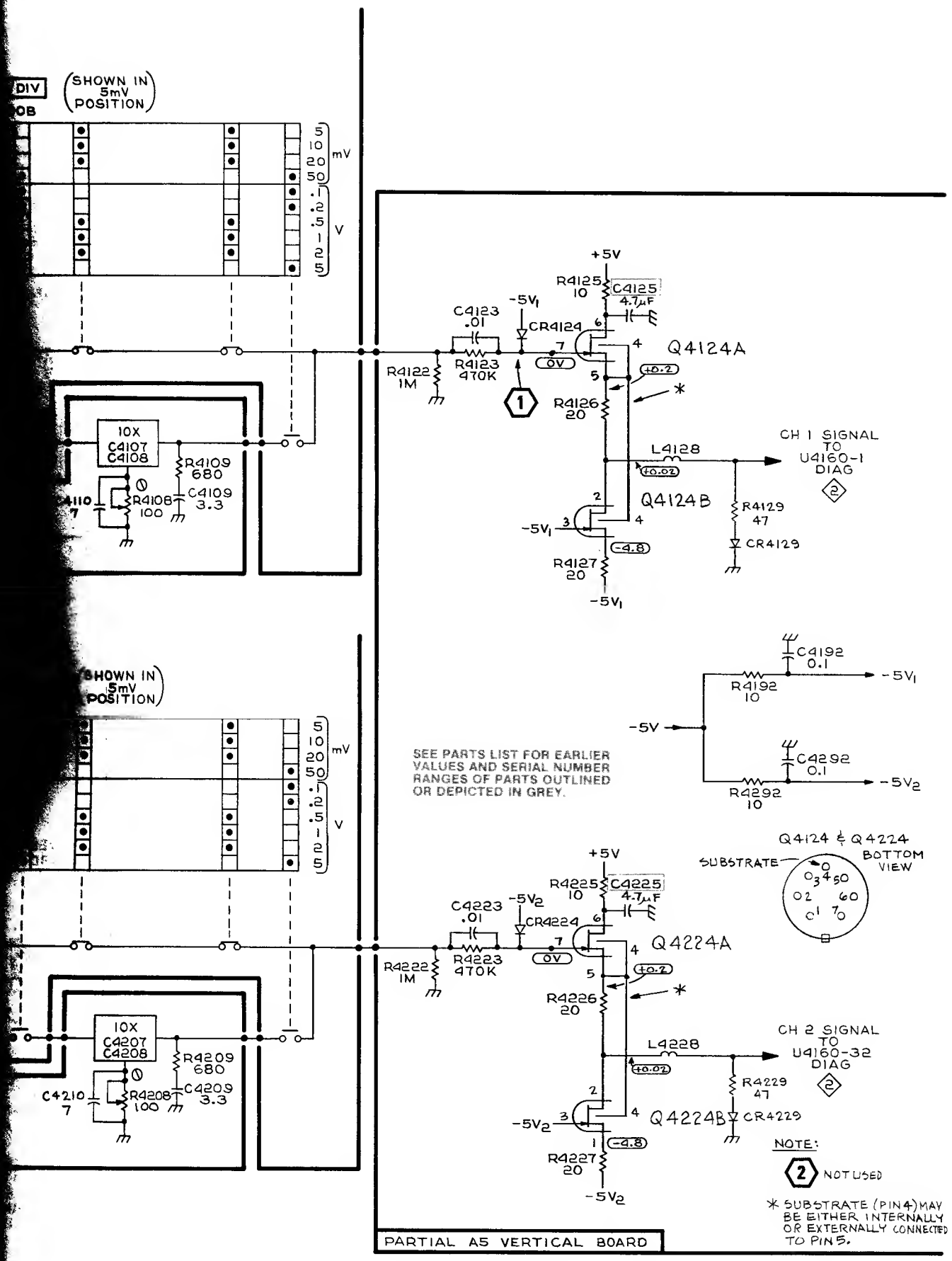


2237-101
REV A SEPT 1980

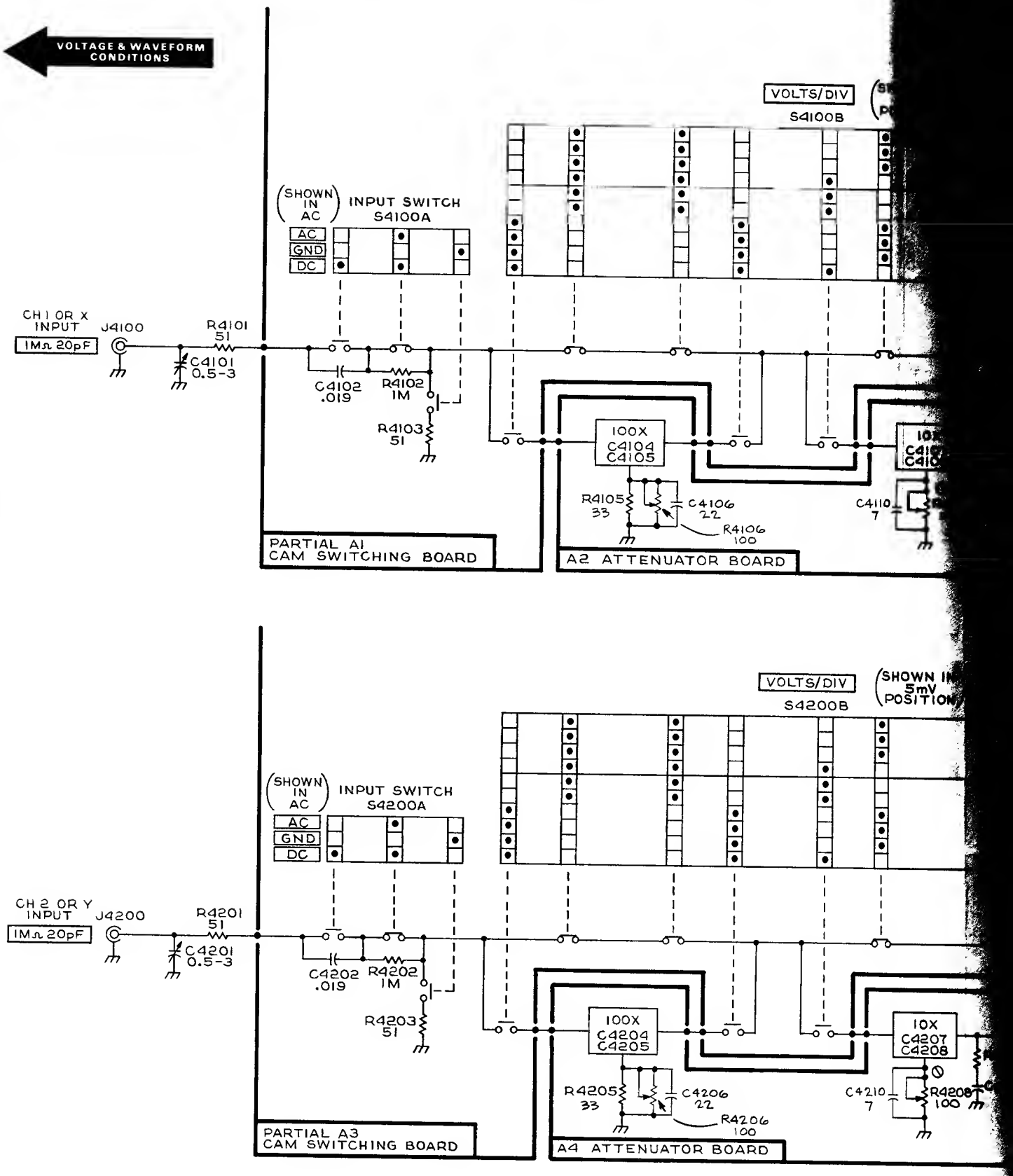
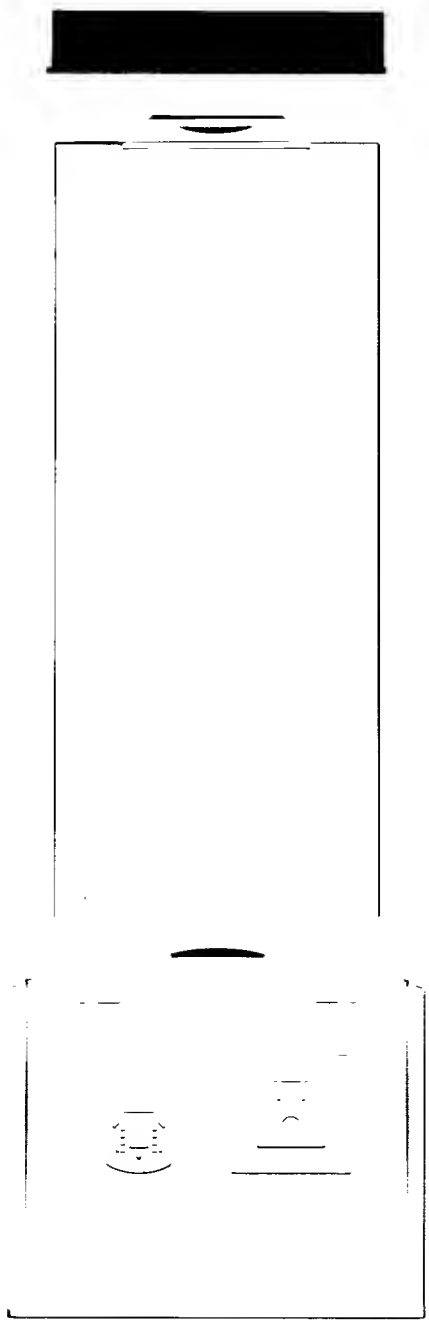

SWITCHING BOARD
U4160
VERT PREAMP
CH 1
CH 2
+GAIN SW OUT
-GAIN SW OUT
X SIG OUT
+TRIG
CH 1 OUT STG EMTR
CH 2 +TRIG OUT
+SIG OUT
-SIG OUT
CH 2 OUT STG EMTR
CH 2 VERT SIG
CH 1 SW
CH2 SW
SHOWN IN 5mV POSITION
CH 1 X SIGNAL TO R2916 DIAG
CH 1 TRIG TO Q2142
CH 2 TRIG TO Q2122
DIAG
GND
VERT SIG TO Q4372 DIAG
VERT SIG TO Q4362 DIAG
CH 2 OUT
50mV/DIV 50Ω
CHOPPED BLANKING TO CR506 DIAG
S4330
VERT MODE
CH 1
ALT
ADD
CHOP
CH 2 OR X-Y
ALT TRACE SYNC PULSE FROM CR2756 DIAG
P4-B13
P4-A15
P4-86
P4225
J4289
J4287
Q4342
Q4352
Q4288
Q4282
Q4316
Q4326
Q4334
Q4338
CR4312
CR4322
CR4328
CR4318
CR4284
T4335
SEE PARTS LIST FOR CAPTION VALUES AND SERIAL NUMBER RANGES OF PARTS OUTLINED OR DEPICTED IN GREY
NOTES:
* MOVE INPUT SIGNAL TO CH 2 AND SET VERT MODE TO CH 2.
** IN ALT.
† CHANGES WITH SETTING OF VERT POSITION CONTROL.
12 13 NOT USED.
2237-99
REV A SEPT 1980
VERTICAL PREAMPLIFIER & SWITCHING 2



2237-99
REV A SEPT 1980



CH1 & CH2 INPUT 1


VOLTAGE & WAVEFORM CONDITIONS
VOLTS/DIV
S4100B
(SHOWN IN AC)
INPUT SWITCH
S4100A
AC
GND
DC
CH 1 OR X INPUT
1MΩ 20pF
J4100
R4101
51
C4101
0.5-3
C4102
.019
R4102
1M
R4103
51
100X
C4104
C4105
R4105
33
C4106
22
R4106
100
C4110
7
PARTIAL A1
CAM SWITCHING BOARD
A2 ATTENUATOR BOARD
VOLTS/DIV
S4200B
(SHOWN IN AC)
INPUT SWITCH
S4200A
AC
GND
DC
CH 2 OR Y INPUT
1MΩ 20pF
J4200
R4201
51
C4201
0.5-3
C4202
.019
R4202
1M
R4203
51
100X
C4204
C4205
R4205
33
C4206
22
R4206
100
10X
C4207
C4208
C4210
7
R4208
100
PARTIAL A3
CAM SWITCHING BOARD
A4 ATTENUATOR BOARD